The structure beneath the landfill is relatively simple. Vaqueros, Rincon, and Monterey strata dip moderately to steeply (45° to 60°) toward the south, and strike in an approximately east-west direction. Minor folds and faults are present in the Monterey Shale, but are generally absent in the Rincon and Vaqueros.

Quaternary age colluvium and alluvium cover most of the Canada de la Pila drainage north and south of the landfill. The alluvium is up to 45 feet thick, based on borehole and trenching data (EMCON, 1991).

2.1.3 Climatology, 100-year Storm and Watershed

The Tajiguas Landfill is located in a coastal canyon approximately 0.4 miles from the Pacific Ocean. According to the Santa Barbara County Flood Control Districts 1993 Precipitation Report, the mean annual rainfall at the Tajiguas rain gaging station is 17.75 inches, and the depth of the 100-year, 24-hours storm is 7.85 inches. The average annual runoff as shown on the Soil Conservation Service map is five inches per year.

The canyon the landfill is located within is drained by Pila Creek, an ephemeral stream with a calculated mean annual flow of 0.25 cubic feet per second. The size of the watershed is 428 acres, of which 78 acres is the landfill footprint.

2.1.4 Waste Intake Monitoring and Placement, Location of Areas with Intermediate Cover, and Current Topographical Information

The location of waste placement between January 1 – June 30, 2000 is included in Plate 2. A log of random load checks and the tonnage received is maintained at the site. A log is also maintained on materials requiring special handling.

3.0 WATER QUALITY SAMPLING PERFORMED DURING THE WINTER/SPRING 2000 MONITORING PERIOD

Copies of the analytical results of groundwater monitoring wells, lysimeter, GLCRS, LLCRS, HWDS, and the NGWMS for the Winter/spring 2000 Monitoring Period are included in Appendix A. The results of water quality sampling for the Tajiguas Landfill performed during the Winter/spring 2000 Monitoring Period are summarized in the following sections.

3.1 MW-2

No VOCs were detected in the first sampling event performed during this Monitoring period. MTBE was reported as trace in the second sampling event performed during this Monitoring period. The reporting of a compound as trace indicates that the constituent is between the laboratories Method Detection Limit (MDL) and Detection Limit for Reporting (DLR). Sulfate and TDS were detected above their respective Maximum Contaminant Level (MCL) in the two sampling events performed during this Monitoring period.

3.2 MW-3

No VOCs were detected in either sampling event performed during this Monitoring period. Sulfate and TDS were detected above their respective MCLs in the two sampling events performed during this Monitoring period.

3.3 MW-4

1,4-dichlorobenzene and cis-1,2-dichloroethylene were detected in both sampling events performed during this Monitoring period. Trichloroethene was detected in one of the two sampling events performed during this Monitoring period. No VOCs were detected above their respective MCL in either sampling event performed during this Monitoring period. MTBE was reported as trace in the two sampling events, and 1,1-dichloroethylene was reported as trace once in the two sampling events performed during this Monitoring period. The reporting of MTBE and 1,1-dichloroethylene as trace indicates that the constituents are between the laboratories MDL and DLR. Two TICs were reported in both sampling events during this Monitoring period. Sulfate and TDS were detected above their respective MCLs in the two sampling events performed during this Monitoring period.

3.4 MW-10

Benzene was not detected in the first sampling event but was detected in the second sampling event during this Monitoring period. The detection of benzene was below its MCL. Cis-1,2-dichloroethylene was ND during the first sampling event but was reported as trace in the second sampling event during this monitoring period. The reporting of a compound as trace indicates that the constituent is between the laboratories MDL and DLR. No inorganics were detected above their MCL in the two sampling events performed during this monitoring period.

3.5 MW-12

No VOCs were detected in either of the sampling events performed during this monitoring period. No inorganics were detected above their MCL in the two sampling events performed during this monitoring period.

3.6 MW-13

No VOCs were detected in the two sampling events performed during this monitoring period. Sulfate and TDS were detected above their respective MCL in both sampling events performed during this monitoring period.

3.7 MW-14

No VOCs were detected in the two sampling events performed during this monitoring period. Iron, sulfate, and TDS were detected above their respective MCLs in the two sampling events.

3.8 MW-15

No VOCs were detected in the first sampling event performed during this monitoring period. MTBE was reported as trace in the second sampling event. The reporting of a compound as trace indicates that the constituent is between the laboratories MDL and DLR. Iron, sulfate, and TDS were detected above their respective MCLs in the two sampling events.

3.9 LY-1

Due to a lack of available moisture, a sample could not be recovered during the first sampling event performed during this monitoring period. Acetone, benzene, chlorobenzene, 1,4-dichlorobenzene, 1,2-dichlorobenzene and cis-1,2-dichloroethene were detected in the second sampling event performed during this monitoring period. MEK, MTBE and trichloroethylene were reported as trace. The reporting of a compound as trace indicates that the constituent is between the laboratories MDL and DLR. One TIC was reported in the second sampling event.

3.10 GLCRS

1,4-dichlorobenzene and MTBE were each detected once in the two sampling events performed during this monitoring period. The detection of 1,4-dichlorbenzene was below its MCL. The detection of MTBE was above its secondary MCL. 1,4-dichlorobenze, MTBE, 1,2 dichlorobenzene, and cis-1,2-dichoroethene were reported as trace during this monitoring period. The reporting of a compound as trace indicates that the constituent is between

the laboratories MDL and DLR. Two TICs were reported in the second sampling event. Sulfate and TDS were detected above their respective MCLs in the two sampling events.

During this monitoring period two samples were recovered from the GLCRS and analyzed for total and fecal coliform bacteria. Total coliform was reported at 300 and at 130 MPN/100ml, and fecal coliform was reported at <20 and <2 MPN/100ml in the two sampling events performed during this monitoring period.

During this monitoring period, a portion of the water recovered from the GLCRS was transported off-site to the Goleta Valley Sanitary District for discharge. The Goleta Valley Sanitary District recovered one sample on March 1, 2000 and had it analyzed for VOCs, semi-volatile organics and metals. A copy of the results is included in Appendix A. The results were non-detect for VOCs and semi-volatile organics, and the results of the metals were either non-detect or low.

During this monitoring period the GLCRS experienced an overflow condition and water from the GLCRS flowed off-site in Pila Creek. A sample of the water was taken and analyzed for VOCs. The results were non-detect.

3.11 LLCRS

During this monitoring period, there was one sampled recovered from the LLCRS. Benzene, chlorobenzene, 1,4-dichlorobenzen, cis-1,2-dichloroethene, ethylbenzene, and vinyl chloride were detected during the sampling event performed during this monitoring period. Acetone, MTBE, and trichloroethene were reported as trace. The reporting of a compound as trace indicates that the constituent is between the laboratories MDL and DLR. Total coliform was reported at <2 MPN/100 ml.

3.12 HWDS

Ten VOCs were detected in the first sampling event, and sixteen VOCs were detected in the second sampling event during this monitoring period. Eight VOCs were reported as TICs in the first sampling event, and seven VOCs were reported as TICs during the second sampling event during this monitoring period. Three VOCs were reported as trace in the first sampling event, and one VOC was reported as trace during the second sampling event during this monitoring period. The reporting of a compound as trace indicates that the constituent is between the laboratories MDL and DLR. Total coliform was reported at 11 and 900 MPN/100 ml, and fecal coliform was reported at <2 MPN/100 ml in both sampling events.

3.13 NGWMS

During this monitoring period, one sample was recovered from the NGWMS and analyzed for VOCs. No VOCs were detected.

4.0 SUMMARY OF WATER QUALITY SAMPLING

4.1 MW-2

CONSTITUENT	TIMES DETECTED / TIMES SAMPLED	RANGE OF DETECTIONS (PPB)	MCL (PPB)
1,4-dichlorobenzene	18/43	0.5 – 1.9	5.0
cis-1,2-dichloroethene	5/33	0.5 – 1.1	6.0
1,2-dicloroethene	7/43	0.8 – 1.2	None
MTBE	16/30	1.0 - 13	5.0[1]
toluene	1/43	0.7	150

[1] – secondary MCL

In addition to VOCs, analysis has also been performed for inorganics specified in the M&RP. Sulfate, and TDS have been detected above their secondary MCL in each sampling event. Iron has been detected twice in five sampling events since it was added to the sampling program in the revised M&RP.

Graphs of historical laboratory data are included in Appendix D. For organics, the graphs present when a compound has been detected. In MW-2, 1,4-dichlorobenzene has not been detected since June 1994, 1,2-dichloroethene has not been detected since April 1991, cis-1,2-dichloroethene has not been detected since February 1994, and toluene has not been detected since December 1996.